

INTERNATIONAL SEARCH REPORT

Intern al Application No
PCT/182004/052330

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H02M3/335

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H02M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 765 113 A (LOCKHART THOMAS WAYNE ET AL) 9 June 1998 (1998-06-09) abstract column 2, line 64 - column 3, line 9 column 6, lines 35-61	1
A	GB 2 308 950 A (MATSUSHITA COMMUNICATION IND U) 9 July 1997 (1997-07-09) abstract page 2, lines 3-11	1
A	EP 0 654 911 A (NOKIA MOBILE PHONES LTD) 24 May 1995 (1995-05-24) page 2, line 56 - page 3, line 16 figures 2,3	1

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

30 December 2004

Date of mailing of the international search report

13/01/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax (+31-70) 340-3016

Authorized officer

Roider, A

INTERNATIONAL SEARCH REPORT

Inter - d Application No
PC, 102004/052330

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/19551 A (CIRRUS LOGIC INC) 7 March 2002 (2002-03-07) cited in the application abstract -----	1

INTERNATIONAL SEARCH REPORT

Intern at Application No
PCT/JP2004/052330

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5765113	A	09-06-1998	NONE	
GB 2308950	A	09-07-1997	WO 9725789 A1	17-07-1997
EP 0654911	A	24-05-1995	FI 94685 B	30-06-1995
			DE 69432509 D1	22-05-2003
			DE 69432509 T2	26-02-2004
			EP 0654911 A2	24-05-1995
			JP 3442881 B2	02-09-2003
			JP 7202795 A	04-08-1995
			US 5519711 A	21-05-1996
WO 0219551	A	07-03-2002	AU 8549101 A	13-03-2002
			EP 1314256 A2	28-05-2003
			JP 2004507967 T	11-03-2004
			TW 519792 B	01-02-2003
			WO 0219551 A2	07-03-2002
			US 2004100328 A1	27-05-2004